

CLAIMS

1. A structure comprising:

a laminate substrate having a top surface for receiving a semiconductor die;

an antenna element situated on said top surface of said laminate substrate, said

5 antenna element coupled to a laminate substrate bond pad;

a bonding wire providing an electrical connection between said laminate substrate
bond pad and a semiconductor die bond pad.

2. The structure of claim 1 wherein said antenna element is coupled to said
10 laminate substrate bond pad by a trace on said top surface of said laminate substrate.

3. The structure of claim 1 wherein an input impedance of said antenna element
15 matches an output impedance at said semiconductor die bond pad.

4. The structure of claim 1 wherein said antenna element comprises copper.

5. The structure of claim 1 wherein said antenna element comprises a square
metal pad.

20 6. The structure of claim 1 wherein said antenna element is selected from the
group consisting of a slot line pattern, a meander line pattern, and a patch pattern.

7. The structure of claim 1 wherein said laminate substrate comprises an organic laminate material.

8. The structure of claim 1 wherein said laminate substrate comprises a ceramic laminate material.

9. The structure of claim 1 further comprising a capacitor, said capacitor coupled to said antenna element.

10. The structure of claim 9 wherein said capacitor is an embedded capacitor.

11. A structure comprising:

a laminate substrate having a top surface;

a first semiconductor die and a second semiconductor die attached to said top

surface of said laminate substrate;

a first antenna element situated on said top surface of said laminate substrate, said first antenna element coupled to a first laminate substrate bond pad;

a second antenna element situated on said top surface of said laminate substrate, said second antenna element coupled to a second laminate substrate bond pad;

a first bonding wire providing an electrical connection between said first laminate substrate bond pad and a semiconductor die bond pad on said first semiconductor die.

a second bonding wire providing an electrical connection between said second laminate substrate bond pad and a semiconductor die bond pad on said second semiconductor die.

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12. The structure of claim 11 wherein said first antenna element is coupled to said first laminate substrate bond pad by a trace on said top surface of said laminate substrate.

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13. The structure of claim 11 wherein an input impedance of said first antenna element matches an output impedance at said semiconductor die bond pad on said first semiconductor die.

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14. The structure of claim 11 wherein said second antenna element is coupled to said second laminate substrate bond pad by a trace on said top surface of said laminate substrate.

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15. The structure of claim 11 wherein an input impedance of said second antenna element matches an output impedance at said semiconductor die bond pad on said second semiconductor die.

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16. The structure of claim 11 wherein said first antenna element comprises copper.

17. The structure of claim 11 wherein said first antenna element is selected from the group consisting of a slot line pattern, a meander line pattern, and a patch pattern.

18. The structure of claim 11 wherein said second antenna element is selected
5 from the group consisting of a slot line pattern, a meander line pattern, and a patch pattern.

19. The structure of claim 11 wherein said laminate substrate comprises an organic laminate material.

20. The structure of claim 11 further comprising a capacitor, said capacitor coupled to said first antenna element.